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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/609,402

07/01/2003

Yoshinori Shimizu

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EXAMINER

WILLIAMS, JOSEPH L

ART UNIT

PAPER NUMBER

2879

NOTIFICATION DATE

DELIVERY MODE

07/27/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/609,402

Applicant(s)

SHIMIZU ET AL.

Examiner

Joseph L. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/06, 7/07, 5/07(2)</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on May 4, 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinnow et al. (GB 1305111), of record by Applicant, in view of Komoto et al. (US 6,340,824).

Regarding claim 1, Pinnow ('111) teaches throughout the document a light emitting device comprising a light emitting component (read laser); and a phosphor capable of absorbing a part of light emitted by the light emitting component and emitting light of wavelength different from that of the absorbed light, wherein a straight line connecting a point of chromaticity corresponding to a peak of a spectrum generated by

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the light emitting component and a point of chromaticity corresponding to a peak of a spectrum generated by the phosphor is substantially along with a black body radiation locus in a chromaticity diagram (see page 3, lines 100-109).

Pinnow ('111) does not disclose that the light-emitting component is a semiconductor.

Further regarding claim 1, Komoto ('824) teaches the use of a semiconductor as the light source for the purpose of having a stable emission wavelength.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the light source of Komoto in place of the light source of Pinnow for the purpose of having a stable emission wavelength.

Regarding claim 2, Komoto ('824) teaches light emitting component is a blue LED.

The reason for combining is the same as for claim 1 above.

Regarding claim 3, Pinnow ('111) teaches the point of chromaticity corresponding to the peak of the spectrum generated by the light emitting component, the point of chromaticity corresponding to the peak of the spectrum generated by the phosphor and contents of the phosphor are adjusted so that said straight line is along with the black body radiation locus (read property of the phosphor on page 3, line 104).

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Regarding claim 4, Pinnow ('111) teaches the straight line contains a point corresponding to a color temperature of about 8080K or 4400K (read property of the phosphor on page 3, line 104).

Regarding claim 6, Pinnow ('111) teaches a main emission peak of the light-emitting component is set within the range from about 420 nm to 490 nm (see table I).

Regarding claim 7, Pinnow ('111) teaches a main emission peak of the light-emitting component is set within the range from about 450 nm to 475 nm (see table I).

Regarding claim 8, Komoto ('824) teaches the structure of the light emitting component is either one structure of homostructure, heterostructure and double-heterostructure which have MIS junction, PIN junction or PN junction.

The reason for combining is the same as for claim 1 above.

Regarding claim 9, Komoto ('824) teaches light emitting component comprises an active layer having a single quantum well structure or multi quantum well structure.

The reason for combining is the same as for claim 1 above.

Regarding claim 10, please note that the claimed method steps are product by process limitations. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in

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the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

Furthermore, it is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113).

Regarding claim 11, Pinnow ('111) teaches an emission peak of the phosphor is set within the range from about 530 nm to 570 nm (see table I).

Regarding claim 12, Pinnow ('111) teaches an emission peak of the phosphor is set within the range from about 510 nm to 600 nm (see table I).

Regarding claim 13, Pinnow ('111) teaches the spectrum generated by the phosphor is mixed light generated by at least two different phosphors.

Regarding claim 14, Komoto ('824) teaches an active layer of the semiconductor light-emitting component comprises InGaN (see brief summary of text)

The reason for combining is the same as for claim 1 above.

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Regarding claim 15, Pinnow ('111) teaches a composition rate of phosphor is adjusted.

Regarding claim 16, Pinnow ('111) teaches a light emitting device comprising: a light emitting component; and a phosphor capable of absorbing a part of light emitted by the light emitting component and emitting light of wavelength different from that of the absorbed light, wherein a straight line connecting a point of chromaticity along an emission wavelength corresponding to a spectrum generated by the light emitting component and a point of chromaticity along an emission wavelength corresponding to a spectrum generated by the phosphor corresponds to white light substantially along a black body radiation locus in a chromaticity diagram.

Pinnow ('111) does not disclose that the light-emitting component is a semiconductor.

Further regarding claim 16, Komoto ('824) teaches the use of a semiconductor as the light source for the purpose of having a stable emission wavelength.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the light source of Komoto in place of the light source of Pinnow for the purpose of having a stable emission wavelength.

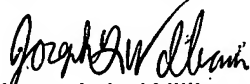
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Joseph L. Williams
Primary Examiner
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